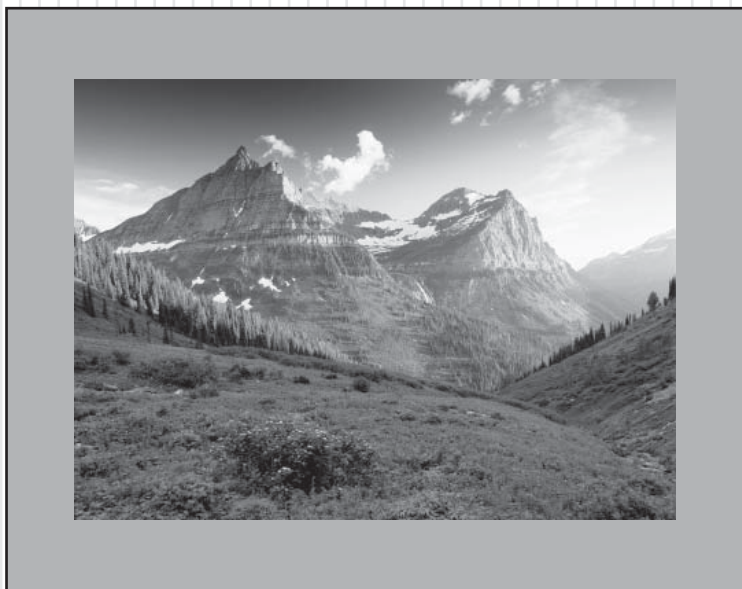


Montana
Comprehensive Assessment
System (MontCAS, Phase 2)
Criterion-Referenced Test (CRT)

COMMON CONSTRUCTED-RESPONSE ITEM RELEASE
MATHEMATICS, GRADE 4

2009



OFFICE OF PUBLIC INSTRUCTION

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Mathematics

Session 1 (No Calculator)

You may NOT use a calculator during this session.

**Write your answer in the space provided for it in your Student Response Booklet.
Show all of your work.**

25. The clock below shows what time a movie will start.



a. What time will the movie start?

The movie is 105 minutes long.

b. How long is the movie in hours and minutes? Show or explain how you found your answer.

c. What time will the movie end? Show or explain how you found your answer.

Scoring Guide

Score	Description
4	5 points
3	4 points
2	3–2 points
1	1 point
0	Response is incorrect or contains some correct work that is irrelevant to the skill or concept being measured.
Blank	No response.

Scoring Notes

Part a:	1 point	correct answer, 2:05
Part b:	2 points	correct answer, 1 hour and 45 minutes , with explanation or work shown
	OR	
	1 point	correct answer, 1 hour and 45 minutes , without explanation or work shown
Part c:	2 points	correct answer, 3:50 , with explanation or work shown
		or
		correct answer based on incorrect answer in part a, with explanation or work shown
		or
		correct answer based on incorrect answer in part b, with explanation or work shown
	OR	
	1 point	correct answer, 3:50 , without explanation or work shown

Sample Responses:

Part b:	There are 60 minutes in an hour, so 105 minutes is the same as 1 hour and 45 minutes.
	or
	105 – 60 = 45 - 1 hour and 45 minutes
Part c:	The movie starts at 2:05 and lasts for 1 hour and 45 minutes, so I added 1 hour and 45 minutes to 2:05 to get 3:50.

a 2:05

b 1 hour, 45 minutes I knew
because you divide $105 \div 60$
and that's the answer for
your hours. And the remainders
are the minutes.

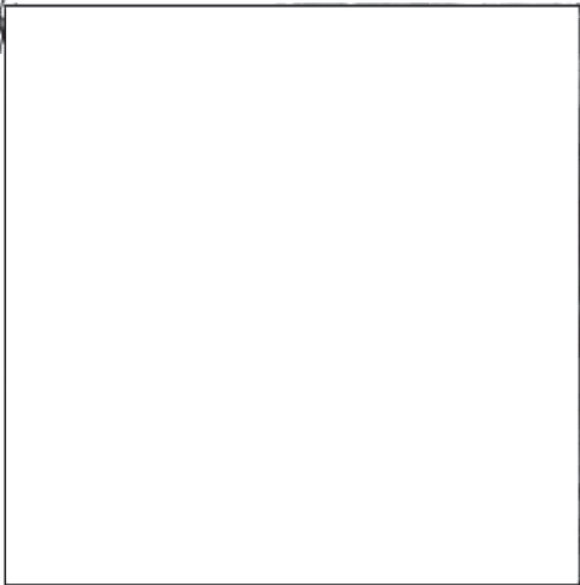
c 3:50 you
because you
just add an 1:45
minutes to 2:05.

Score Point 4

Sample 2

a. 2:05 } b. One hour is 60 min. so if you ^{are} 1:05 how long the
it is 1 hour and 45 min.
$$\begin{array}{r} 1:05 \\ - 60 \text{ min} \\ \hline 45 \text{ min! left} \end{array}$$

c. One hour
after the movie starts
it will be 3:05 and there are
45 min left in the movie so
3:05 and then the
$$\begin{array}{r} 3:05 \\ + 45 \text{ min.} \\ \hline 3:50 \end{array}$$
 movie will
end at 3:50.



Score Point 3

Sample 1

Handwritten student work for a math problem. The work is organized into three sections labeled A, B, and C.

Section A: $2:05$

Section B: $1 \text{ hr.} + 45 \text{ min.}$

Section C: A vertical addition problem showing the sum of two times:

$$\begin{array}{r} 2:05 \\ + 1:45 \\ \hline 3:50 \end{array}$$

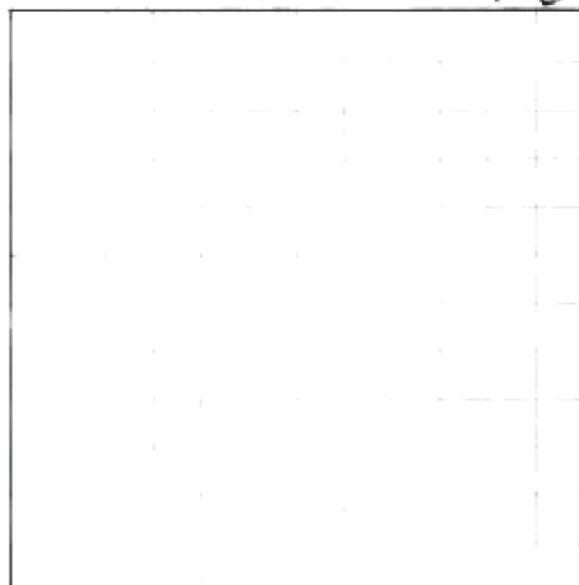
Below the handwritten work is a large empty rectangular box with a grid pattern, intended for additional work or a diagram.

2:05

1 hour 45 min.

$$\begin{array}{r}
 0105 \\
 - 60 \\
 \hline
 45 \\
 +100 \\
 \hline
 145
 \end{array}$$

I subtracted 60 from 105 because 60 min. is an hour then add 45 to one hour.



3:50 I looked at the clock, and pointed with my hand and found out.

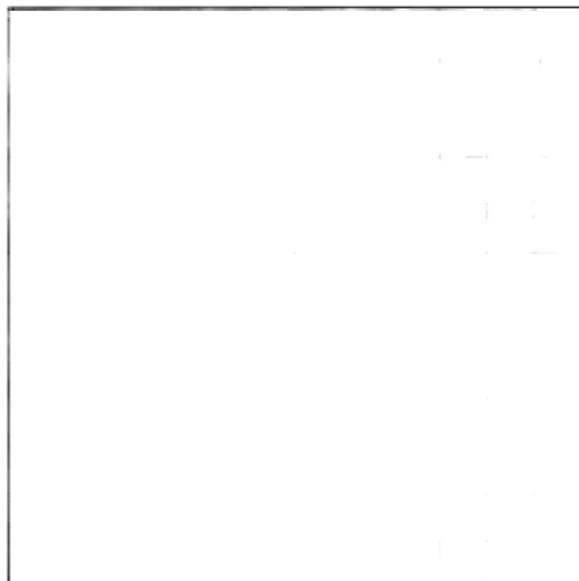
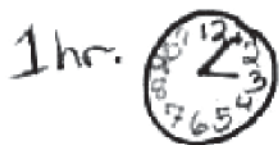
Score Point 3

Sample 3

a. 2:05

b. $60 + 45 = 105$ 1 hr. 45 min.

c. 3:50



Score Point 2

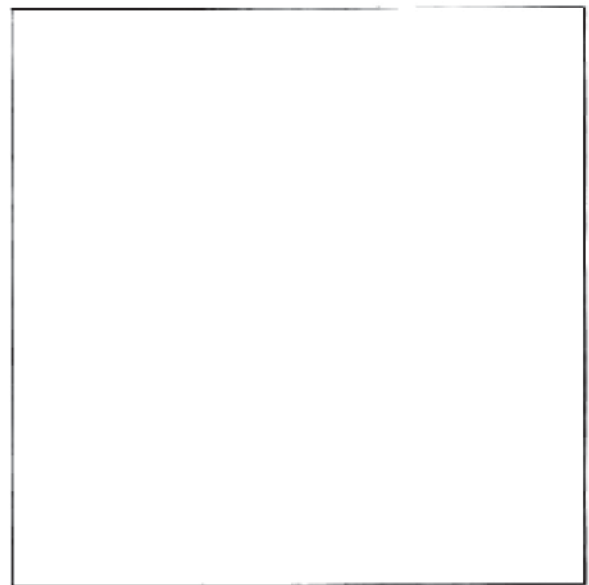
Sample 1

The Movie starts at 2:05

$$\begin{array}{r} +50 \\ +50 \\ \hline 100 \text{ hour} \end{array} = 1 \text{ hour } 5 \text{ minutes}$$

5 minutes

The movie ends at 3:10



Score Point 2

Sample 2

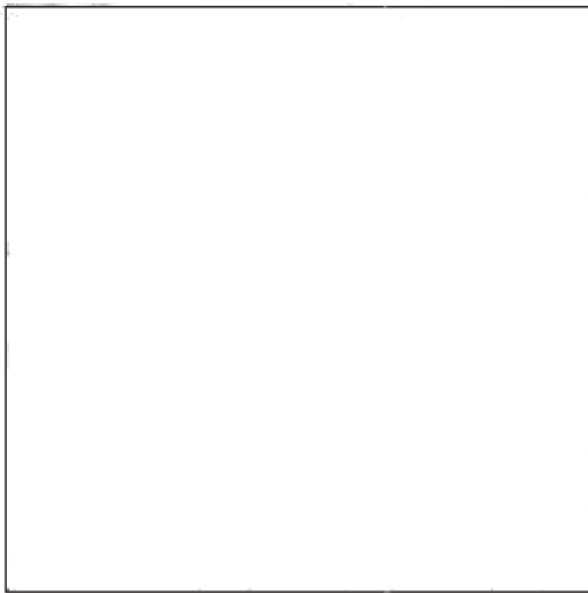
A. 2:05

B. 1:25 minute cause "added

C. 3:30 i added the 2:05
and the 1:25 and i got

$$\begin{array}{r} 2:05 \\ 1:25 \\ \hline 3:30 \end{array}$$

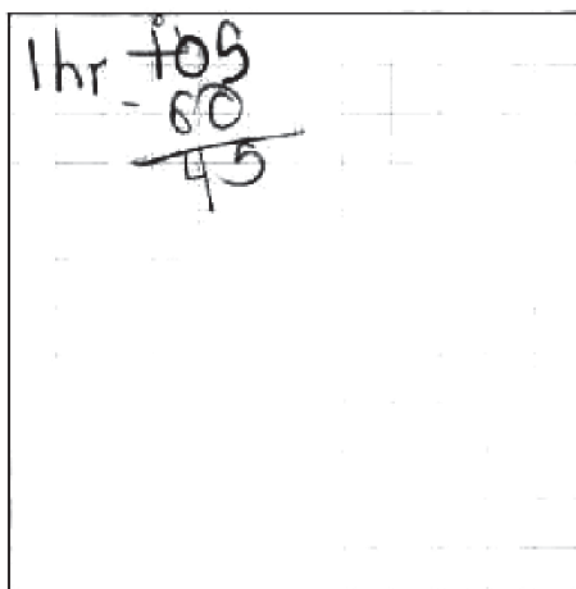
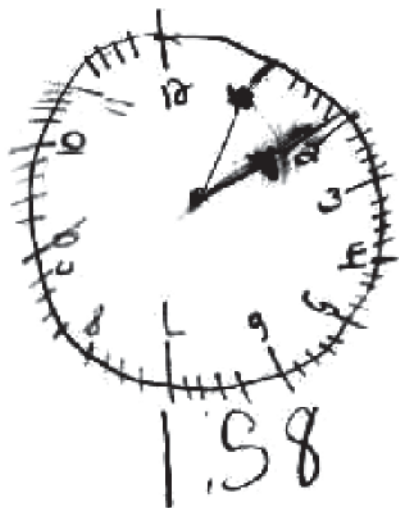
$$\begin{array}{r} 60 \\ 60 \\ \hline 120 \\ 5 \\ \hline 125 \end{array}$$



Score Point 2

Sample 3

1 hour and 45 minutes



Score Point 2

Sample 4

The movie will start at
2:05. The movie is 1 hour and
45 minutes long. The movie
will end at 3:10.

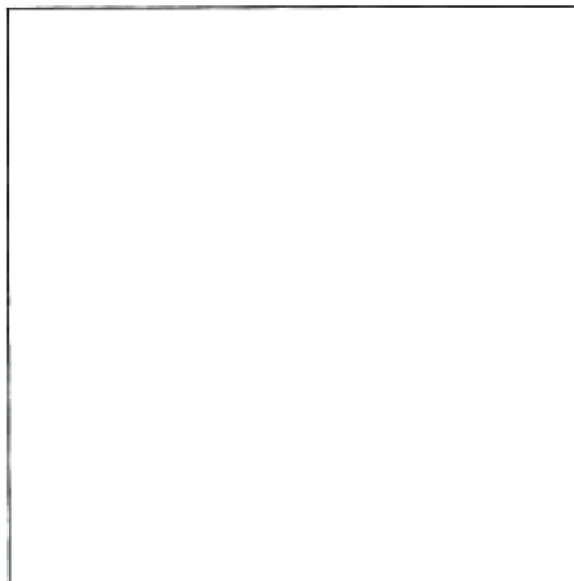


A. 2:05

B. 1 hr. 45 min. I got the answer
by adding how many
105. min to get from 60 to

C. The movie
will end at
3:10.

$$\begin{array}{r} 2:05 \\ + 105 \text{ min.} \\ \hline 3:10 \end{array}$$

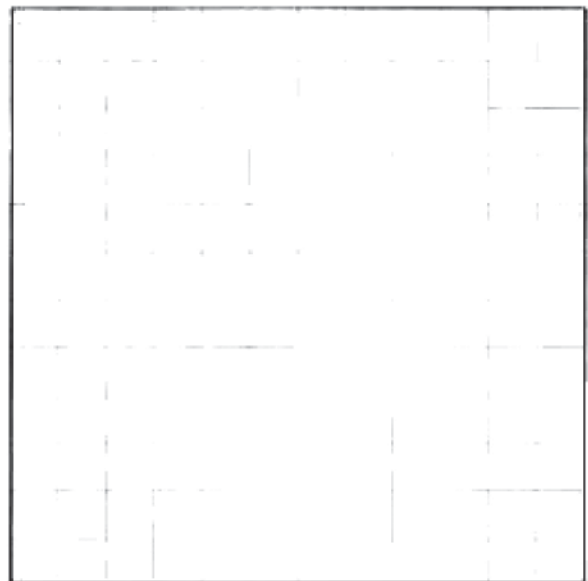


Score Point 1

Sample 1

A. 2:05 B 3:10

$$\begin{array}{r} 1 \\ 2:05 \\ + 1:05 \\ \hline C. 3:10 \end{array}$$



Score Point 0

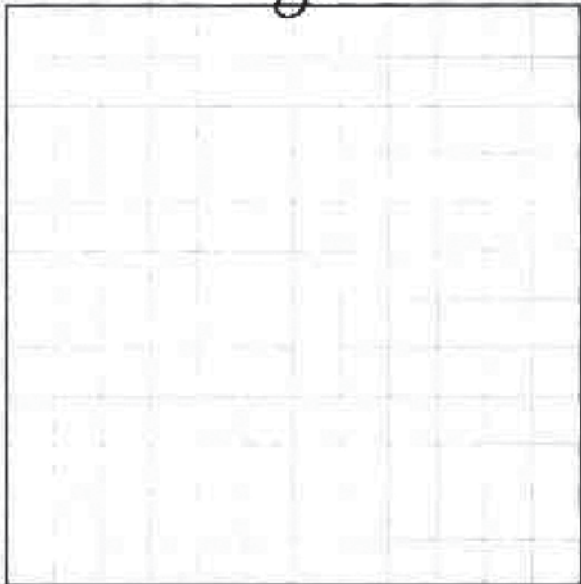
Sample 1

a. 10:00
b. 11:00, 1:00 I found my answer by multiplying.

+ 11:00
- 1:00

2:00

c. 8:00. I found my answer by subtracting.



Score Point 0

Sample 2

The movie will end at 2:15. How I got
the answer an hour would be 2:10 plus 5 more
minutes gives you 2:15.



Score Point 0

Sample 3

a. 1:10
B. 1 hour 10 seconds
c. 7:10

